

Down Maine Veterinary Clinic)	Departmental
York County)	Findings of Fact and Order
Sanford, Maine)	Air Emission License
A-86-71-G-R)	

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Down Maine Veterinary Clinic (Down Maine) of Sanford, Maine has applied to renew their Air Emission License permitting the operation of a Class IV-A (veterinary) incinerator, to dispose of animal remains.

B. Emission Equipment

Down Maine is authorized to operate the following equipment:

The incinerator is a #2 oil (kerosene in the winter) fired Consumat Model C-18P with the following specifications:

Class Incinerator	IV-A
No. of Chambers	2
Type of Waste	Type 4
Max. Design Rate (lb/hr)	75
Max. Charging Rate	150 lb per batch
Auxiliary Fuel Input:	
Primary Chamber (MMBtu/hr)	0.325 #2 fuel oil
Secondary Chamber (MMBtu/hr)	0.250 #2 fuel oil
Emissions Control	Afterburner

The incinerator combustion gases vent to a 17-foot AGL (Above Ground Level) stack. This represents 48.5 % of the formula GEP (Good Engineering Practice) stack height.

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C. Application Classification

Down Maine has not proposed the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

A. Equipment Specifications

Operating temperature in the secondary chamber shall be maintained at or above 1600°F with a stack gas retention time, at or above 1600°F, of at least 0.5 second. A prototype test report indicated the average retention time in the secondary chamber was 0.38 seconds. To provide sufficient volume to insure a retention time of 0.5 seconds at 1600 °F, that portion of the stack extending to a minimum of 1.67 feet above the afterburner chamber is considered to be an integral part of the afterburner; a pyrometer will be installed and maintained at that location to insure a retention time of at least 0.5 seconds at 1600 °F in the secondary chamber.

To insure an efficient burn, and to prevent odors and visible emissions, the secondary chamber will be preheated, as specified by the manufacturer, until the pyrometer temperature measures a minimum of 1600°F. The temperature will remain at a minimum of 1600°F throughout the duration of the burn cycle.

A log will be maintained recording the weight of the waste charged, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight of waste charged shall be logged on the chart.

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Chapter 104 regulates particulate matter (PM) from incinerators to 0.2 gr/dscf corrected to 12% CO₂.

SO₂, NO_x, CO and VOC emissions were based on the burning of #2 fuel oil with a maximum sulfur content of 0.5% and AP-42 emission factors.

Opacity from the incinerator is regulated by Chapter 104, however an opacity limit of 10% (excluding water vapor) on a six (6) minute block average basis is more stringent and shall be used.

The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.

The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

B. Annual Emission Restrictions

Down Maine shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	0.19
PM ₁₀	0.19
SO ₂	1.32
NO _x	0.38
CO	0.09
VOC	0.01

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a non-major source shall be determined on a case-by-case basis. Based on the information available in the file, the small emissions levels, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. An air quality analysis is not required for this amendment.

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ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-86-71-G-R, subject to and in the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

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- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
- B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[MEDEP Chapter 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

SPECIFIC CONDITIONS

- (16) The incinerator shall be used for the disposal of Type 4 (veterinary) waste and shall not be used for the disposal of any plastics, cytotoxic (antineoplastic) drugs or radioactive wastes. [MEDEP Chapter 115, BPT]
- (17) The incinerator shall not exceed the maximum design feed rate of 75 lbs. per hour. Auxiliary fuel input to the primary chamber shall not exceed 0.325 MMBtu/hr and the auxiliary fuel input to the secondary chamber shall not exceed 0.250 MMBtu/hr, each on #2 fuel oil with a maximum sulfur content of 0.5%. Down Maine may fire kerosene in lieu of #2 fuel oil during the winter months. Fuel receipts shall be maintained on a 12 month rolling total to show compliance with the sulfur limits. [MEDEP Chapter 115, BPT]
- (18) A log shall be maintained recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight of waste charged shall be logged on the chart. [MEDEP Chapter 115, BPT]
- (19) The secondary chamber shall be preheated to a minimum of 1600°F prior to the burning of any waste and shall be maintained at a minimum of 1600°F during the duration of the burn. [MEDEP Chapter 115, BPT]
- (20) A pyrometer and 1/4 inch test port shall be installed and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 0.5 seconds at a minimum of 1600°F. [MEDEP Chapter 115, BPT]
- (21) Down Maine shall not exceed a particulate matter emission limit of 0.20 gr/dscf corrected to 12% CO₂ without the contribution of the CO₂ from the auxiliary fuel. Therefore, based on the maximum design combustion rate and continuous operation of the Class VI-A incinerator, emissions shall be limited to the following: [MEDEP Chapter 115, Chapter 104, BPT]

<u>Pollutant</u>	<u>gr/dscf</u>	<u>lb/hr</u>
PM	0.20	0.15
PM ₁₀	-	0.15
SO ₂	-	0.30
NO _x	-	0.09
CO	-	0.02
VOC	-	0.01

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- (22) Visible emissions from the incinerator shall not exceed an opacity limit of 10% (excluding water vapor) on a six (6) minute block average basis. [MEDEP Chapter 115, Chapter 104, BPT]
- (23) The incinerator combustion gases shall vent to a stack of at least 17 feet AGL. [MEDEP Chapter 115, BPT]
- (24) The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management. [MEDEP Chapter 115, BPT]
- (25) The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications, and shall be familiar with the terms of this Air Emission License as it pertains to the operation of the incinerator. [MEDEP Chapter 115, BPT]
- (26) Down Maine shall operate and maintain a continuous chart recording device to document compliance with the temperature requirements of this license. [MEDEP Chapter 115, BPT]
- (27) Down Maine shall pay the annual air emission license fee within 30 days of **October 31st** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above.

Date of initial receipt of application: 4/5/2004

Date of application acceptance: 5/4/2004

Date filed with the Board of Environmental Protection: _____

This Order prepared by Jonathan Voisine, Bureau of Air Quality